REQUEST FOR COUNCIL ACTION CITY OF SAN DIEGO		CERTIFICATE NUMBER (FOR COMPTROLLER'S USE ONLY)
TO: CITY COUNCIL	FROM (ORIGINATING DEPARTMENT): Public Works/Engineering	DATE: 2/25/2015
SUBJECT: Process Improvement and Streamlining for Capital Improvement Program (CIP) Delivery		
PRIMARY CONTACT (NAME, PHONE): Richard Leja,619-533-5112 M.S. 908A	SECONDARY CONTACT (NAME, PHONE): Abi Palaseyed, 619-533-4654 M.S. 908A	

COMPLETE FOR ACCOUNTING PURPOSES

FUND					
FUNCTIONAL AREA					
COST CENTER					
GENERAL LEDGER ACCT					
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00
FUND					
FUNCTIONAL AREA					
COST CENTER					
GENERAL LEDGER ACCT					
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00

COST SUMMARY (IF APPLICABLE): Not Applicable

ROUTING AND APPROVALS

CONTRIBUTORS/REVIEWERS:		APPROVING AUTHORITY	APPROVAL SIGNATURE	DATE SIGNED
Liaison Office		ORIG DEPT.	Gibson, Marnell	03/03/2015
Financial Management		CFO		
		DEPUTY CHIEF	LoMedico, Stacey	03/06/2015
		COO		
		CITY ATTORNEY		
		COUNCIL PRESIDENTS OFFICE		

PREPARATION OF: ☐ RESOLUTIONS ☐ ORDINANCE(S) ☐ AGREEMENT(S) ☐ DEED(S)

This is an informational item only

STAFF RECOMMENDATIONS:
Accept the report.

SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)

COUNCIL DISTRICT(S):	All
COMMUNITY AREA(S):	Citywide
ENVIRONMENTAL IMPACT:	Not Applicable
CITY CLERK	Not Applicable

INSTRUCTIONS:	

COUNCIL ACTION
EXECUTIVE SUMMARY SHEET
CITY OF SAN DIEGO

DATE: 2/25/2015
ORIGINATING DEPARTMENT: Public Works/Engineering
SUBJECT: Process Improvement and Streamlining for Capital Improvement Program (CIP) Delivery
COUNCIL DISTRICT(S): All
CONTACT/PHONE NUMBER: Richard Leja/619-533-5112 M.S. 908A

DESCRIPTIVE SUMMARY OF ITEM:
This item is for informational purposes only and is presented to discuss the planned Process Improvement and Streamlining Measures for the Delivery of CIP Projects.
STAFF RECOMMENDATION:
Accept the report.
EXECUTIVE SUMMARY OF ITEM BACKGROUND: As described in the Mayor's State of the City address and referred to in the report to the City Council's Committee for Infrastructure on January 21, 2015, the Public Works Department has identified several process improvement and streamlining measures that will improve the development and delivery of the City's Capital Improvement Program (CIP) projects. Some of the key measures are:

- On-line Construction Contract Bidding
- Dedicated Environmental (CEQA) Teams for CIP projects
- Expanded Use of JOC and MACC contracts

Detailed descriptions of all of the proposed measures are contained in the attached report. It is estimated that all of these improvements will collectively reduce time to complete most CIP projects by up to 15 weeks. Some measures will improve the delivery time of specific CIP project types by as much as 24 weeks, depending on the applicability.

FISCAL CONSIDERATIONS: Overall CIP cost reductions of approximately $3M to $9M annually are anticipated.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (IF APPLICABLE): Not applicable

PREVIOUS COUNCIL and/or COMMITTEE ACTION: On January 21, 2015, the City's first consolidated Multi-Year Capital Planning Report (MYCP) was presented to the City Council's Committee for Infrastructure, which refers to these proposed measures.

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS: Measures related to construction have been presented to various industry professional organizations.

KEY STAKEHOLDERS AND PROJECTED IMPACTS: Key stakeholders include members of the public, the Mayor, City Council, Infrastructure Committee, Office of the Independent Budget

Analyst, Capital Improvement Program Review and Advisory Committee, Community Planners Committee and Community Planning Groups, Planning Commission and other stakeholders.

Gibson, Marnell
Originating Department

LoMedico, Stacey
Deputy Chief/Chief Operating Officer

THE CITY OF SAN DIEGO

REPORT TO THE CITY COUNCIL

DATE ISSUED: March 6, 2015 REPORT NO: 15-020

ATTENTION: Infrastructure Committee Agenda of March 11, 2015

SUBJECT: Capital Improvements Program (CIP) - Process Improvement and Streamlining

REQUESTED ACTION:

NONE. THIS IS AN INFORMATIONAL ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COMMITTEE OR CITY COUNCIL

STAFF RECOMMENDATION:

Accept the report.

BACKGROUND AND OBJECTIVE:

Improving the systems associated with delivering infrastructure is one of the Mayor's goals presented in the State of the City address on January 14, 2015. This objective was also referenced in the Multi-Year Capital Planning (MYCP) Report that was presented to the City Council's Infrastructure Committee on January 21, 2015, which provided a five (5) year assessment of the current state of capital needs for the City's infrastructure and reinforced the need for effective implementation of the City's Capital Improvement Program (CIP). This report will outline several process improvement and streamlining measures that will benefit the implementation (delivery) of CIP projects for public infrastructure.

OVERVIEW OF THE CAPITAL IMPROVEMENT PROGRAM (CIP):

The delivery of CIP projects is typically managed by the Public Works Department (PWD) with supporting functions provided by several other service providing departments throughout the City including but not limited to City Comptroller, Debt Management, Development Services, Financial Management, Planning, Real Estate Assets, and others.

The portion of the CIP managed by the Public Works Department represents a total value of up to $3.2B and nearly 1,000 projects. Each year the department delivers (designed/constructed) up to $300M. This includes projects from a wide variety of infrastructure types including transportation, water, sewer, facilities, parks, drainage, stormwater quality, and others. To address this complexity, the delivery of CIP projects uses a variety practices and procedures for CIP project development to cover everything from contracting methods to outreach practices and internal approval procedures.

PREVIOUS CIP STREAMLINING MEASURES:

The Public Works Department works with other departments to continuously evaluate the efficiency of the CIP delivery process and identify needed improvements. In 2012 and 2013, a number of key CIP process improvement and streamlining measures were enacted to help deliver CIP project more efficiently and effectively including:

- Construction Contract Authority increased to $30M
- CIP Consultant Contract Authority increased to $1M
- Job Order Contracting (JOC) task limits increased to $5M
- Multiple Award Construction Contract (MACC) program approved
- Council Policy of CIP Transparency
- Waterfall/Cascade CIP Project List approved
- Modify Bid Protest Procedure
- Amended Council Policy 600-24 and 600-33 for Park and Recreation Projects
- Amended the Site Development Permit Process for a CIP Streamlined option
- CIP Website for better public information.
- Contract Limits for Job Order Contracts from $10M to $30M approved
- Internal Service Fund for the PWD-EB FY15 Operating Budget
- Electronic CIP Advertisement (Planet Bids)

These streamlined practices are in use today on newer CIP projects and have allowed the PWD to deliver CIP in a more cost effective manner. Although only partial streamlining implementation has taken place on older projects due to procedural limitations, it is anticipated that additional efficiencies will be realized, once the older CIP projects are completed so that all CIP projects can benefit from these improvements.

ADDITIONAL CHALLENGES TO CIP DELIVERY:

Although the benefits of the previous CIP measures brought substantial benefit to the CIP program, several other areas of improvement to current procedures affect the current efficiency of CIP delivery including:

- Manual Processing of Construction Contract Bids
- Lack of CIP Dedicate Environmental Teams
- Partial Implementation of Alternative Delivery Contracting

Another major factor that affects the current efficiency of the CIP delivery costs is the size of CIP projects. Each CIP project includes fixed costs that are common to all projects such as the costs for construction contract procurement. Therefore, the use of a larger average project size would result in a lower overall CIP costs through sharing of these common expenses. Currently, the median size of a CIP project in the City of San Diego is $1M with a substantial amount of projects lesser than this value:

Existing CIP Project Sizes	
CIP Project Size ($)	% of CIP
0-100K	9%
101K-500K	25%
501K-1M	17%
1M+	49%

CIP DELIVERY COMPARISONS WITH OTHER AGENCIES:

To assist with this evaluation, CIP practices and performance are compared to established CIP benchmarks and Best Management Practices (BMP's). The City of San Diego is a founding member of the California Multi-Agency CIP Benchmarking Study (MABS), which compiles the CIP implementation experiences and project delivery costs for eight of the largest cities in California. The City of San Diego has consistently met the delivery CIP cost benchmarks described in this study.

NEW CIP PROCESS IMPROVEMENT AND STREAMLINING MEASURES:

Using these resources and their continuous CIP evaluation process, the Public Works Department has identified additional process improvement and streamlining measures that will further assist with the efficient delivery CIP projects. The measures currently under development include the following items:

A) On-Line Bidding and Award of Construction Contracts (eBidding/eSignatures)

- **Background** – Although bidding document distribution is currently practiced using on-line resources, bidding is still performed using hard copy bids and an in-person bid opening process. This limits the number of CIP projects that can be awarded daily.
- **Proposal** – On-Line Bidding and Award of Construction Contracts (eBidding/eSignatures)
- **Advantages**:
  - Increased Competition - increases potential bidder/proposer's knowledge of available work, thereby increasing competition, diversity, and inclusion.
  - Enhanced number of actions - Present physical space will no longer be required for bid opening, can accommodate multiple projects simultaneously.
  - Focused Distribution - Match project/contract requirements with contractors
  - Significantly reduced award process administration by 3 weeks.
  - Minimizing Human Error - eliminates the risk of over-sighted omissions and math errors from the bidder(s) input.
  - Reduced Number of Protests - all transactions within the bid are traceable.
  - Improved Audit Capabilities - Improved information flow and data collection
- **Action** – Amend Municipal Code to allow Digital Signatures to award contracts online (Purchasing). PWD is developing Citywide AR for Construction and A&E Contracts.
- **Timing** - Near Term (by July 1st)

B) Dedicated CIP Teams for CEQA Determination & Permitting

- **Background** - Many small CIP projects such as ADA improvements, sidewalks, resurfacing, and water/sewer group jobs are often determined to be exempt from CEQA. Interim project steps such as consultant design contracts and planning studies are also typically exempt. Currently, the PWD-ECP environmental staff reviews these actions and then the DSD/Planning staff reviews and process the NOE, which results in a duplication of effort. In addition, the CEQA and Permitting reviews for these actions are subject to the same intake process and review times as private development projects.

- **Proposal** – Delegate limited CEQA authority to the Principle Planner in PW-ECP for these actions.
- **Advantages** - This would result in savings of time (2-3 weeks) and costs to CIP projects by removing the duplicate reviews. With this, the Planning Department and Development Services Department staff would be able to focus on more complex projects with potentially significant impacts per CEQA and/or require higher level environmental documents (Mitigated Negative Declaration, Environmental Impact Reports).
- **Action** – Delegation Limited CEQA & Permit Authority
- **Timing** - Near Term (by July 1st)

C) Increased Use of Job Order Contracts (JOC)

- **Background** – Job Order Contracts (JOC) currently are used for most types of construction work, such as paving, sewer/water pipelines, and other infrastructure. However, usually one contract is used per asset.
- **Proposal** – Increase the size and number of JOC to cover all assets each with different geographical limits (at least two per asset).
- **Advantages**:
  - Greater flexibility in issuing tasks and for quicker CIP delivery
  - Since task issuance is quicker than formal advertisement/awarding, time savings could be on the order of $5k per contract or task.
  - Extend the JOC approach for other asset types
- **Action** – Two Large JOC Paving contracts (two $20M) currently being awarded.
- **Timing** - Near Term (by July 1st)

D) Increase Average Public Works Contract Size (from less than $2M to over $5M)

- **Background** – Over 50% of CIP Projects are less than $1M (median), which results in higher CIP delivery costs due duplication of common activities, such as contract procurement. A small project requires the same level of processing that a large project does.
- **Proposal** – Combine CIP projects into larger contracts that have an average value of $5M each. Increased EOC project goals will maintain overall commitment. Work closely with the Construction Industry to ensure appropriate bonding capacity.
- **Advantages** - Depending on the packaging of individual CIP projects from year to year, it would be feasible to recognize a total program savings (through project cost savings) of roughly $1M- $2M program wide annually (5%-24% per project).
- **Action** – Commitment of Asset Managing Departments
- **Timing** - Near Term (by July 1st)

E) Additional Construction Crew Usage (TSWD) for Small Improvements

- **Background** – Construction crews have limited availability for CIP work.
- **Proposal** – Provide additional concrete construction crew (approx. 12 staff) to implement small projects less than $250k, which then don't require design plans by PWD.
- **Advantages** - Savings in design and contracting time which could result in a range of 15%-30% cost savings per project (vs. a formal design process) as well as a time savings of 12-24 weeks (depending on the scope of the project).

- **Action** – Budget Approval
- **Timing** - Near Term (by July 1st)

F) Portfolio Approach for Consultant Authorizations

- **Background** –Every consultant contract for CIP must undergo a review by HR in reference to the labor agreements with MEA. Currently, these are performed individually for each CIP action, sometimes multiple actions per project.
- **Proposal** – Obtain approval for a group of consultant contracts for CIP projects based on a group (portfolio) of services for the entire year rather than individual actions.
- **Advantages** - For each action, it is estimated that a minimum of 8 hours of staff time and 3 weeks of project time would be saved, which could result in over $500K per year. HR would also recognize a staff time savings.
- **Action** – Labor Union Discussions
- **Timing** - Near Term (by July 1st)

G) Use Current Construction Contracts for Planned Resurfacing

- **Background** – Currently, contracts for underground infrastructure install only interim resurfacing measures. Overlay or pavement replacements are performed later as part of roadway contracts.
- **Proposal** – Use the current contracts to install permanent resurfacing, using roadway funding sources.
- **Advantages**:
  - Faster implementation of resurfacing needs.
  - Less community disturbance.
- **Timing** - Near Term (by July 1st)

H) Expand the use of MACC contracts

- **Background** – MACC contracts are being used with great success on sewer & water projects.
- **Proposal:**
  - Implement MACC approach for Facilities and Stormwater (LID) Projects
  - Increase MACC Task Limit from$10M to $30M
- **Advantages**:
  - Schedule savings of approximately 20%, due to the removal of the 2nd bid process and the elimination of repeated Council Authorizations.
  - Cost savings of approximately $25k-$45k of staff time per project, depending on the size of the contract and the task limits.
- **Action** – In Council Action to amend the Design-Build Ordinance.
- **Timing** - Mid Term (6-8 Months)

I) Electronic Review Process for PA 2625 Actions

- **Background** – The 1472 has been converted to an electronic review process, which has saved both time and cost. However, the PA 2625 process has not been converted and is still required for all CIP actions.
- **Proposal** – Implement an Electronic Review Process for PA 2625 actions

- **Advantages** – Based on the conversion of the 1472 to an electronic process, it is estimated that time savings would be afforded for every 2625. This could result in $1M annually program wide, a reduced process time of 2-4 weeks.
- Prevent documents from being lost during physical routing. Each project requires multiple 2625's to be processed throughout its life cycle.
- **Action** – In Progress.
- **Timing** - Long Term (12 months)

J) GDP Reform for Minor Park Improvements

- **Background** – The General Development Process (GDP) process is lengthy and makes no exceptions for minor park improvements. This significantly increases the time and cost to make minor park improvements, as similar agencies do already. Also, projects in the GDP phase undergo a preliminary environmental review for impacts that necessitates further detailed drawings.
- **Proposal** (3 parts)
  - Limit the GDP Step to Planning (scoping) Level Effort Only
    - Better manage expectations by identifying and communicating the Parks General Development Process as a planning phase -create the CIP project when scope has been agreed upon.
  - Minimize the number of community meetings (or GDP approval). Allow approvals to occur at a higher level of scope definition and minimize the number of meetings spent on details that are outside of the planning level phase:
    - Eliminate the Area Committee step identified in CP600-33, OR
    - Limit Area Committees' review of GDP/GDP Amendments to Community Parks (as opposed to a $1M threshold) and larger (i.e. do not take Mini Parks and Neighborhood Parks).
    - Eliminate the Design Review Committee (this is already covered by a Licensed Landscape Architect that is hired as part of the GDP process)
    - Remove or simplify the environmental review during the GDP phase. The GDP can be approved by the P&R Board without a planning document. Environmental review will be addressed during the design phase.
- **Advantages**:
  - Allows the City to manage scope, cost and schedule expectations
  - Shortens the GDP process by removing the detailed scope discussions and allowing it to progress faster, which is estimated to be 2 months savings if both committees removed (i.e. 25%- 50% reduction in schedule for an 8 to 12 months GDP process)
  - Allows the City to be comparable to statewide benchmark measures for design/construction
  - Provides for better budget and schedule projections
  - Reduced costs (estimated $25K or more per project) from staff and consultant time associated with these meetings, reports and GDP drawings).
- **Action** – Park Board and Community Outreach
- **Timing** - Long Term (12 months)

K) Standardization of Fire Stations and Comfort Station Designs

- **Background** – Currently, every fire station and comfortable station have custom designs for each project.
- **Proposal** – Develop a fixed set of facility exterior templates (and floor plans) for new fire stations citywide. These templates would be presented to the community in a menu style format. The community would then have the flexibility to customize the exterior building architectural style (color/material) to express the fabric of their community.
- **Advantages**:
  - Faster design by reducing the time and effort invested in community input process and construction drawing development (estimated 20-30% savings for schedule and budget)
  - Reduced Operations & Maintenance Costs through consistent layout and systems (Mechanical, Electrical, and Plumbing) and commonality of replacement equipment.
  - Consistent Planning Efforts with the better defined needs for READ and Planning to better estimate future facilities.
- **Action** – Under development
- **Timing** - Long Term (12 months)

L) Implement Batch/Options Contracting (Design Sequencing)

- **Background** – CIP projects are separately contracted.
- **Proposal** – The application of the options contracting delivery method of a single Construction or Design Build contract for the implementation of a set of CIP's with similar scopes; whereby not all the listed CIP's in the contract are fully funded. The prices for all of the projects listed in the options contract would be fixed for a set period (with the allowance of an escalation clause- e.g. after 1 year). For the example of sublets within a specific FY facilities annual allocation, a design build options contract can be issued at the beginning of the year (one procurement), allowing for the "shovel ready" concept-design can then commence in any order for any of the sublets in the option contract. If funding is determined insufficient to complete all of the listed sublets, the City can opt out of the remainder of work.
- **Advantages**
  - Anticipated Schedule Savings: 10-20% for each WBS or sublet
  - Anticipated Budget Savings: 10-20% for each WBS or sublet
- **Action** – Revising Internal Procedures
- **Timing** - Long Term (12 months)

M) Concept Based Selection of Design-Build Teams

- **Background** – Previously, design-build projects selected the best design build team and then obtained community input for scope development and subsequent design.
- **Proposal** – Design build teams develop competing design concepts and selection is made based on community input within a fixed budget limit. Community input is focused at this stage of the project rather than during design development. This prevents potential cost overruns and schedule delays. The conceptual design and team is selected based on community input, technical qualifications, Public Contracting Law Compliance, Equal Opportunity Compliance.

- **Advantages** - Streamline the design phase by reducing the time and effort invested in community input process:
  - Anticipated Design Phase Schedule Savings: 30-40%
  - Anticipated Budget Savings: 20-30%
  - Locks the overall cost of the project at the planning stage.
  - Prevents cost overruns due to changes in scope.
  - Streamlines the procurement process.
- **Action** – Revising Internal Procedures
- **Timing** – Long Term (12 months)

SCHEDULE BENEFITS SUMMARY:

The degree to which implementation of these streamlining measures will benefit individual projects depends their applicability to each individual project. Some measures only provide benefit to specific types of CIP projects (assets), while others benefit all projects. The following table provides a summary of the benefits for the proposed streamlining measures.

Process Improvement (Streamlining) Benefit Summary			
Benefit Type	Time Savings (Weeks)		Other Benefits
Measure	Asset Specific Measures	Measures for all Asset Types	
On-Line Bidding and Award of Construction	0	3	Project Cost Savings
Dedicated CIP Teams for CEQA	0	3	Project Cost Savings
Increased Use of Job Order Contracts	4	0	Project Cost Savings
Increased CIP Contract Size	0	0	Project Cost Savings
Additional Construction Crews for Small	24	0	Project Cost Savings
Portfolio Approach for Consultant Authorizations	0	3	Project Cost Savings
Use Current Contracts for Resurfacing	0	0	Less Community Impacts
Expand the use of MACC contracts	8	2	Project Cost Savings
Electronic Review Process for PA 2625 Actions	0	4	Better Process Reliability
GDP Reform for Minor Park Improvements	10	0	Project Cost Savings
Standardization of Facility Designs	10	0	Project Cost Savings
Batch/Options Contracting (Design Sequencing)	18	0	Project Cost Savings
Concept Based Selection of Design-Build Teams	12	0	Project Cost Savings
Totals	**NA**	**15**	

Once fully implemented, it is estimated that these measures will reduce the time required to complete most CIP projects by up to 15 weeks. Other measures could improve the delivery time of specific CIP project types by as much as 24 weeks, depending on the applicability.

ESTIMATED CIP FISCAL BENEFITS:

Savings from previous streamlining measures have resulted in an estimated savings of approximately 10%. It is anticipated that a similar savings will result from these new measures as well. However, the degree to which implementation of these measures will benefit the cost of the overall CIP program will depend of the applicability to each individual project and the mix of projects within the overall CIP and other factors.

Process Improvement (Streamlining) Cost Benefit Estimate					
Estimated Streamlining Benefit (CIP Project Life)	Estimated Streamlining Benefit (CIP Project Year)	Annual CIP Delivery - Constructed or Designed ($)	Estimated Average Overall CIP Savings ($)	Minimum* Annual Overall CIP Savings ($)	Maximum* Annual Overall CIP Savings ($)
10%	2%	$ 300,000,000	$ 6,000,000	$ 3,000,000	$ 9,000,000
**50% varience expected due to the fluxuations in the mix of project types in the CIP.*					

Using this information, it is estimated that these measures will reduce the overall cost of CIP delivery between $3M to $9M annually for all CIP projects combined. However, benefits to individual CIP projects would highly vary, depending on the type of project and its current level of streamlining implementation.

PREVIOUS COUNCIL and/or COMMITTEE ACTION:
On January 21, 2015, the City's first consolidated Multi-Year Capital Planning Report (MYCP) was presented to the City Council's Committee for Infrastructure, which refers to these proposed meaures.

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:
Measures related to construction have been presented to various industry professional organizations.

KEY STAKEHOLDERS AND PROJECTED IMPACTS:
Key stakeholders include members of the public, the Mayor, City Council, Infrastructure Committee, Office of the Independent Budget Analyst, Capital Improvement Program Review and Advisory Committee, Community Planners Committee and Community Planning Groups, Planning Commission and other stakeholders.

James Nagelvoort
Public Works Department Director
City Engineer

Stacey LoMedico
Assistant Chief Operating Officer